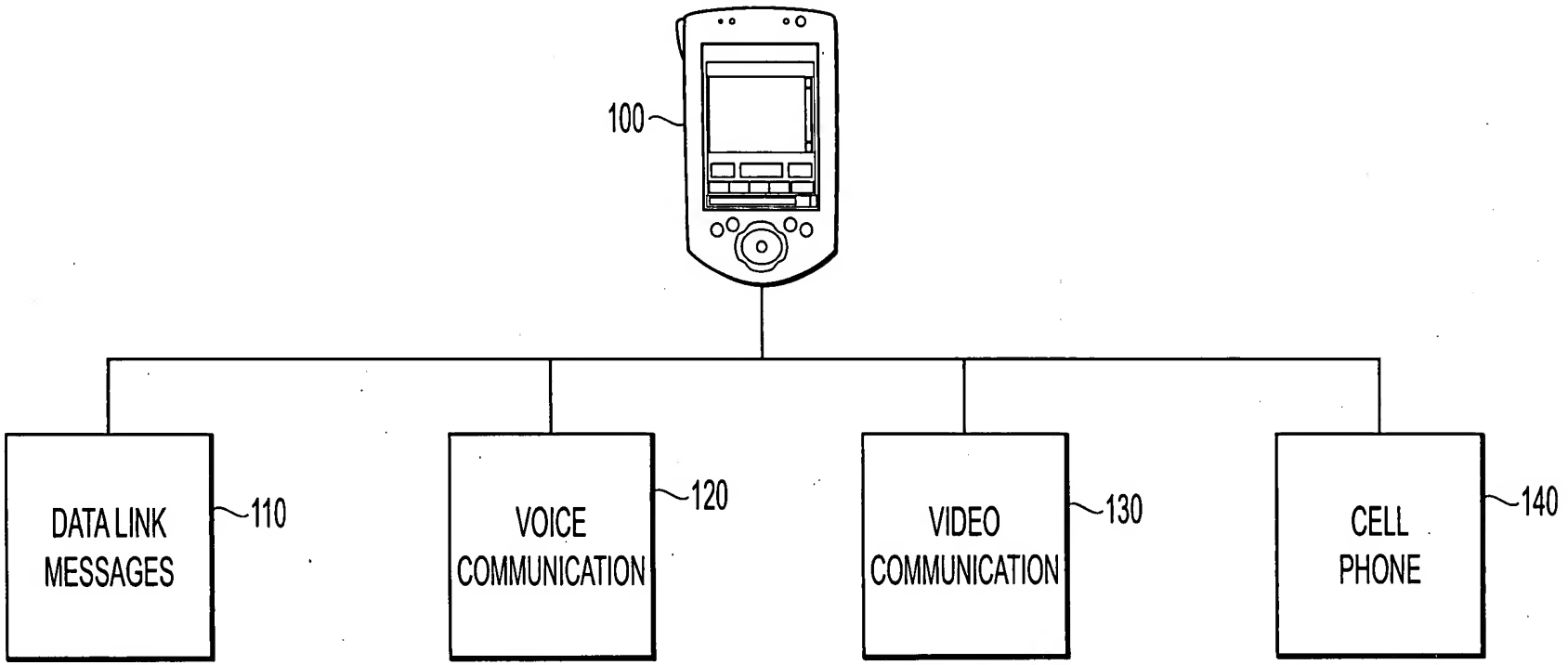
OIPE
MAY 04 2004
PATENT & TRADEMARK OFFICE
JC116



- Near real-time data link communications over existing ACARS network
- Send & receive ACARS messages
  - o other FAMs
  - o to and from pilot
  - o ground

- Wireless communication - VoIP
- Voice communication
  - o with the pilot
  - o other FAMs
  - o anyone on the ground

- Display streaming video
- Select still frame images to ground
- Interface with on board peripheral device

- Communicate using cell phone Technology when not airborne
  - o Voice
  - o Provides e-mail & SMS data message capability

FIG. 1

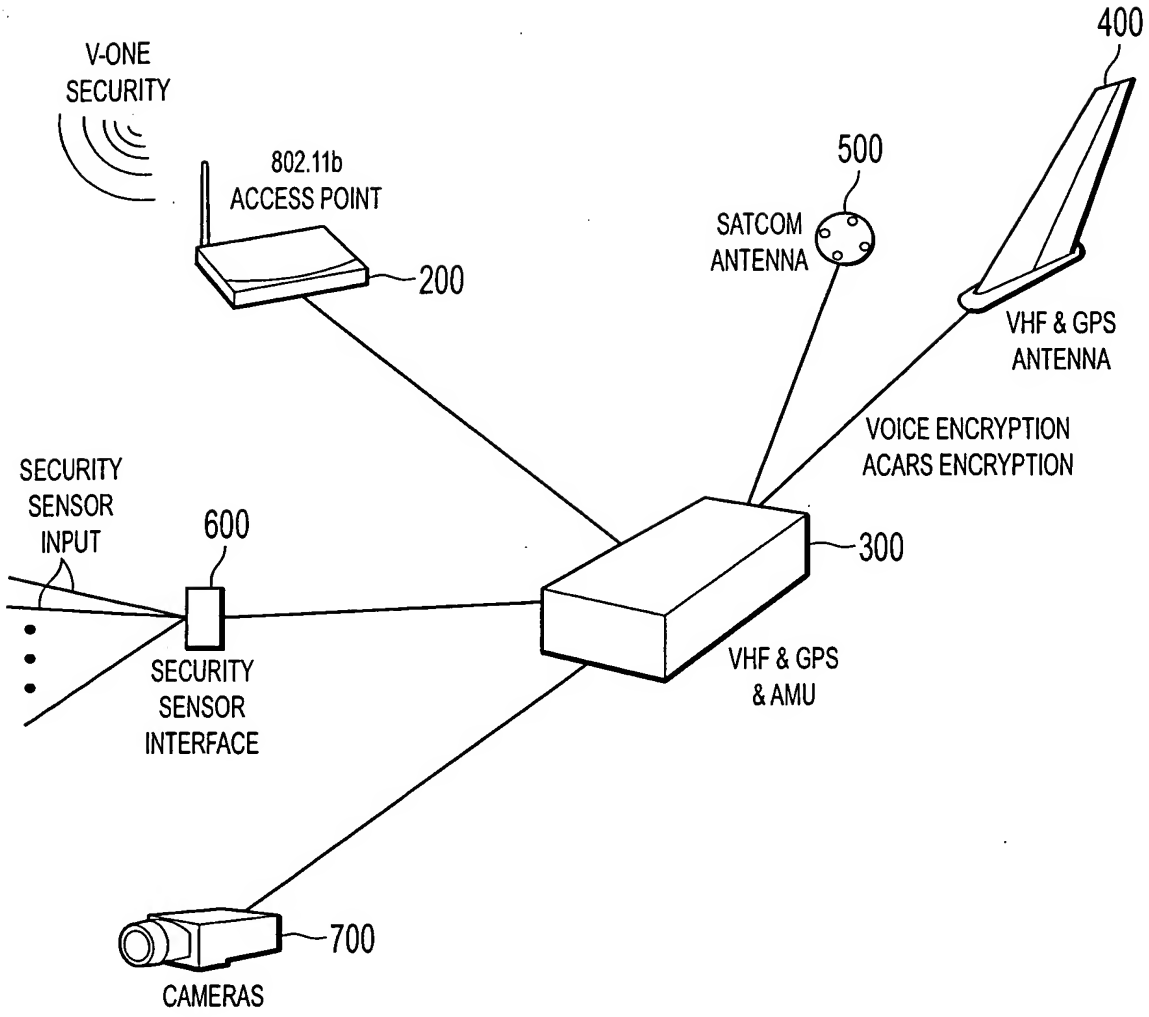

V-ONE
SECURITY
802.11b
ACCESS POINT
200
400
500
SATCOM
ANTENNA
VHF & GPS
ANTENNA
VOICE ENCRYPTION
ACARS ENCRYPTION
SECURITY
SENSOR
INPUT
600
300
SECURITY
SENSOR
INTERFACE
VHF & GPS
& AMU
700
CAMERAS

FIG. 2

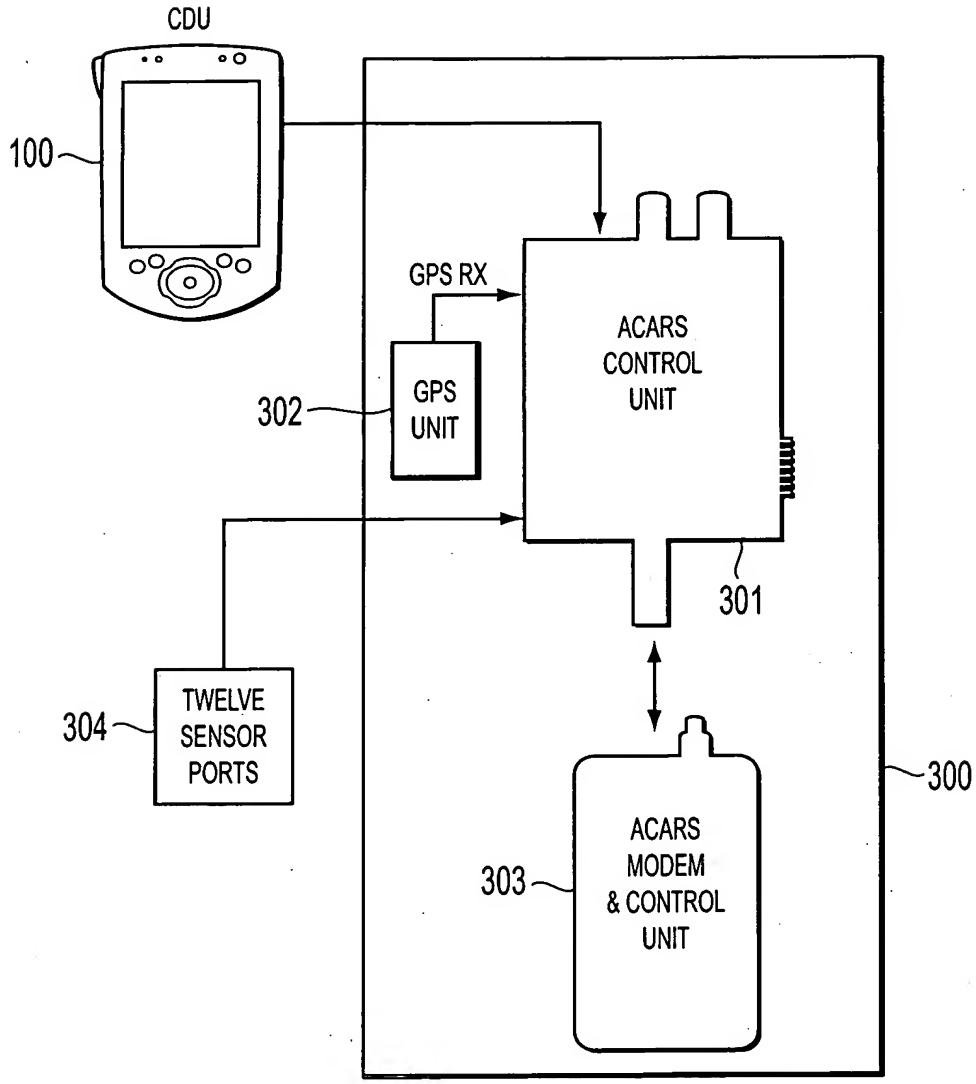

CDU
100
GPS RX
ACARS
CONTROL
UNIT
GPS
UNIT
302
301
TWELVE
SENSOR
PORTS
304
ACARS
MODEM
& CONTROL
UNIT
303
300

FIG. 3

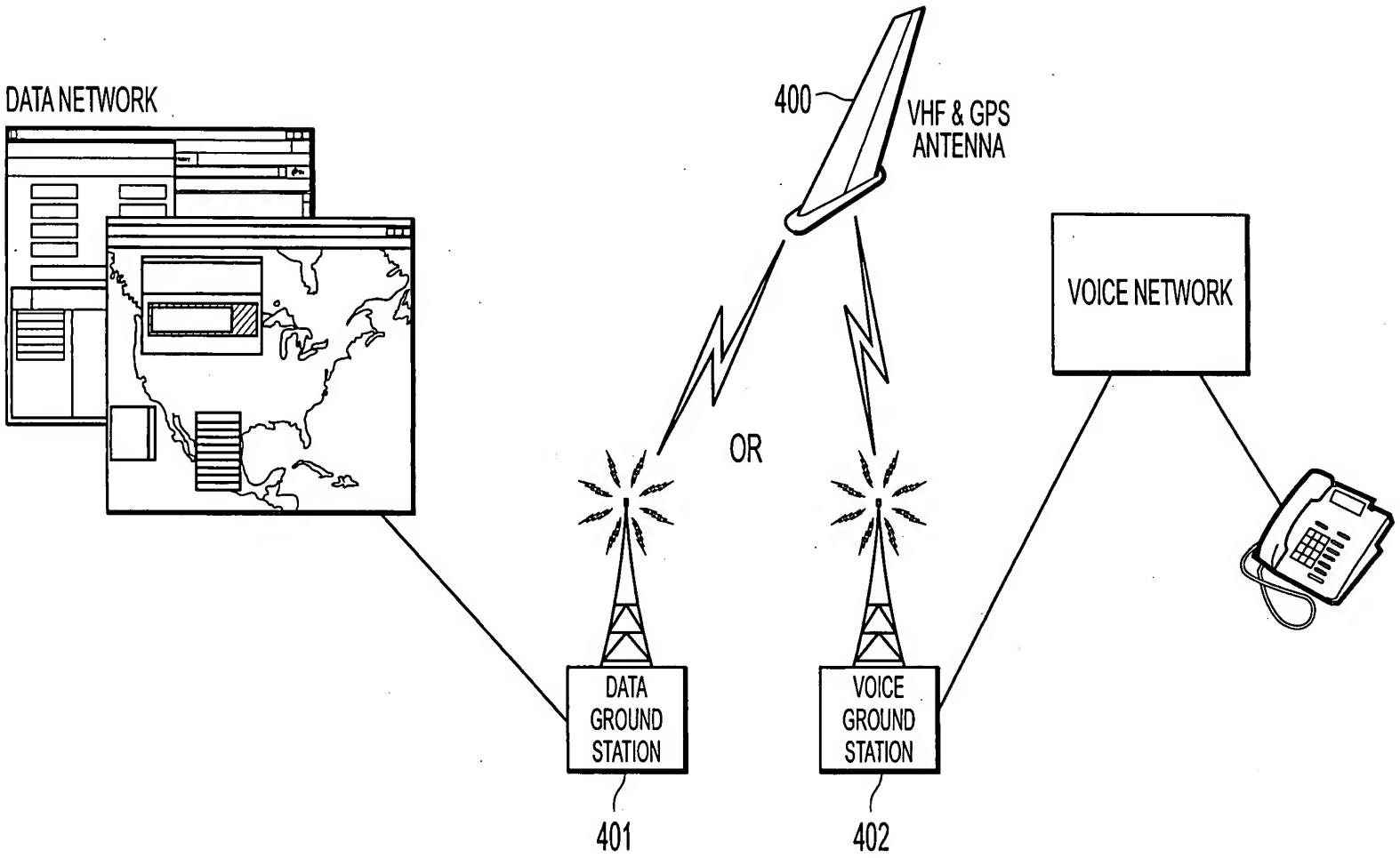

DATA NETWORK
400
VHF & GPS
ANTENNA
VOICE NETWORK
OR
DATA
GROUND
STATION
VOICE
GROUND
STATION
401
402

FIG. 4

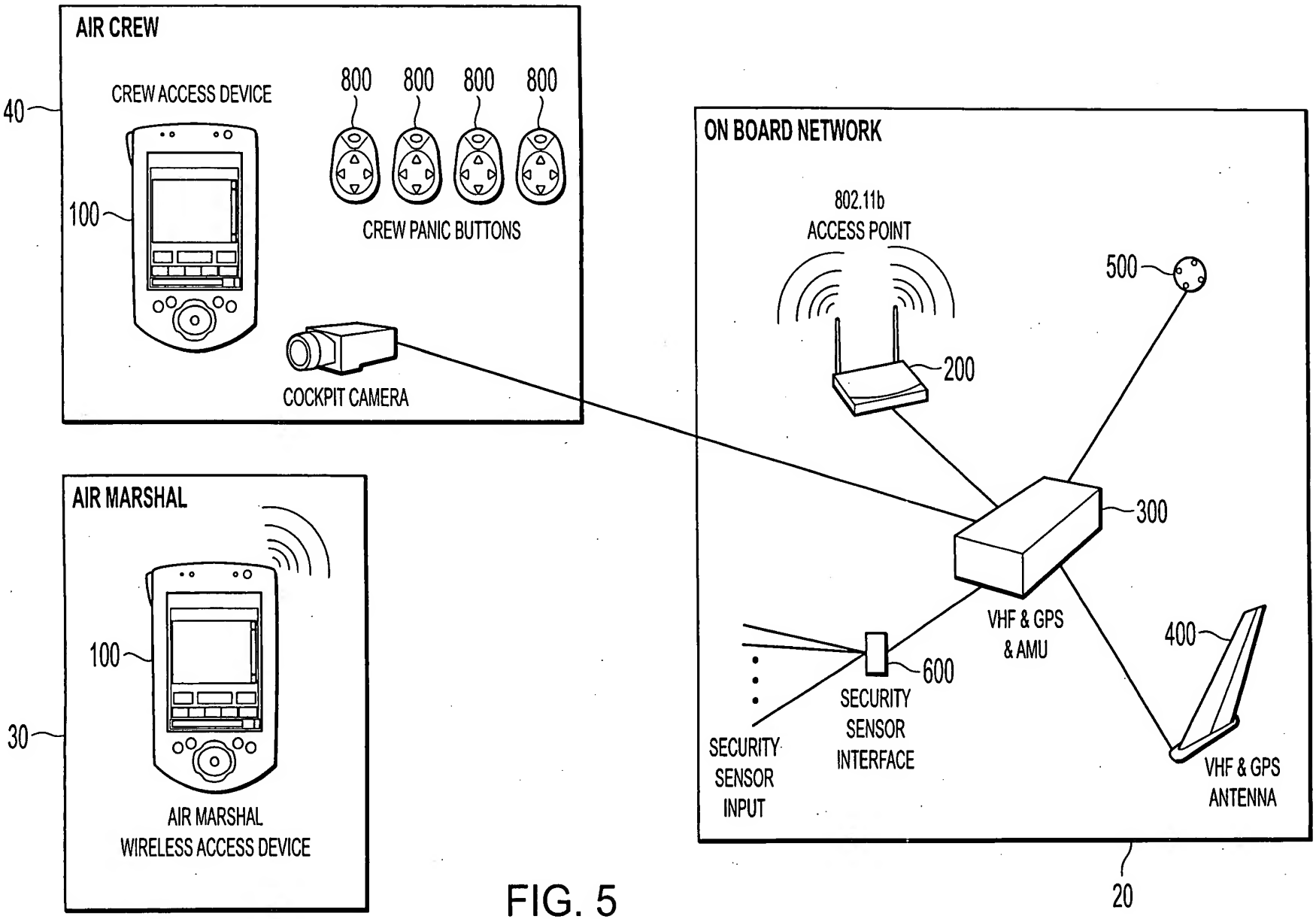

AIR CREW
40
CREW ACCESS DEVICE
100
800
800
800
800
CREW PANIC BUTTONS
COCKPIT CAMERA
AIR MARSHAL
100
30
AIR MARSHAL
WIRELESS ACCESS DEVICE
ON BOARD NETWORK
802.11b
ACCESS POINT
200
500
300
VHF & GPS
& AMU
400
600
SECURITY
SENSOR
INTERFACE
SECURITY
SENSOR
INPUT
VHF & GPS
ANTENNA
20

FIG. 5

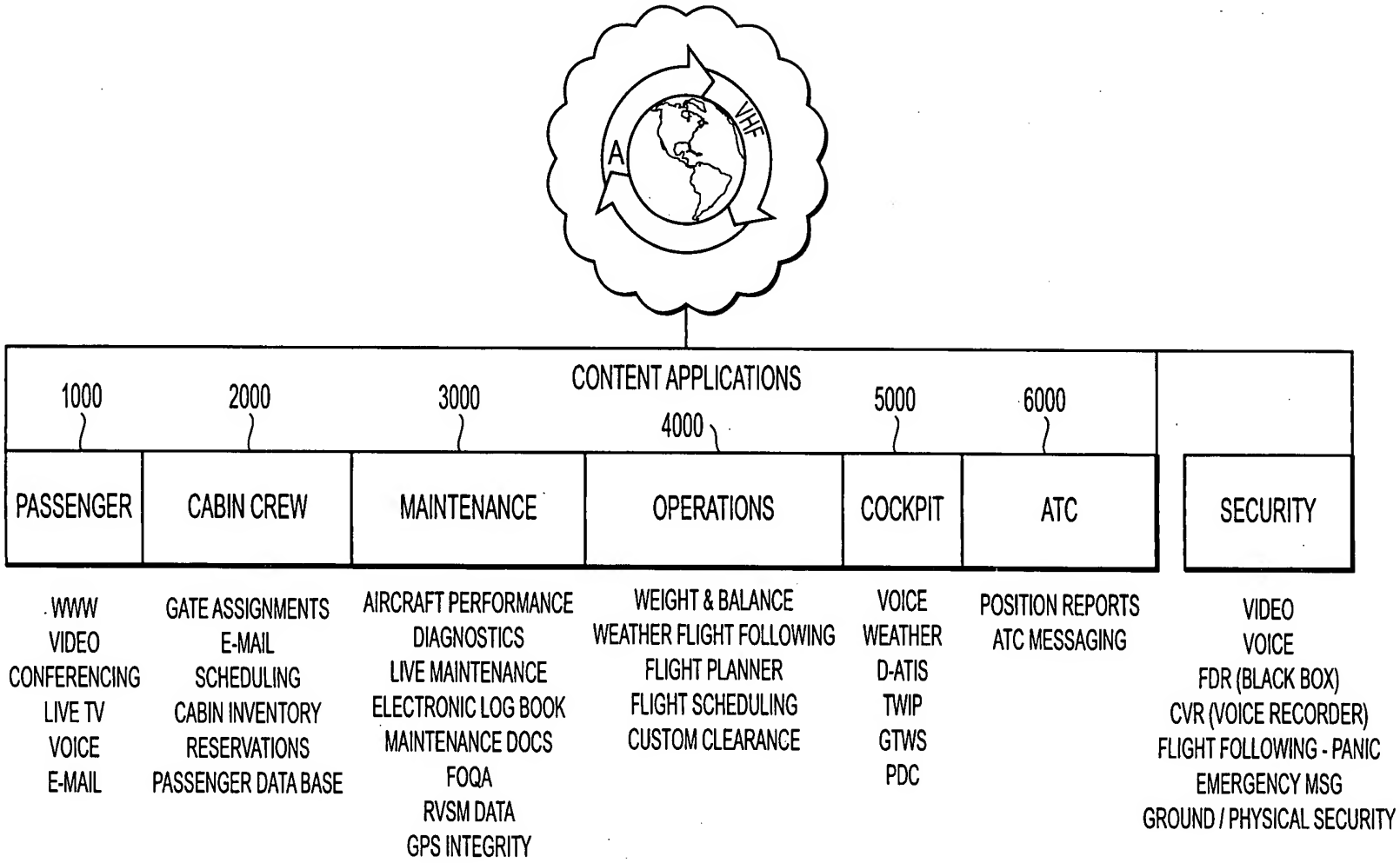

A
VHF
CONTENT APPLICATIONS
1000
2000
3000
4000
5000
6000
PASSENGER
CABIN CREW
MAINTENANCE
OPERATIONS
COCKPIT
ATC
SECURITY
WWW
VIDEO
CONFERENCING
LIVE TV
VOICE
E-MAIL
GATE ASSIGNMENTS
E-MAIL
SCHEDULING
CABIN INVENTORY
RESERVATIONS
PASSENGER DATA BASE
AIRCRAFT PERFORMANCE
DIAGNOSTICS
LIVE MAINTENANCE
ELECTRONIC LOG BOOK
MAINTENANCE DOCS
FOQA
RVSM DATA
GPS INTEGRITY
WEIGHT & BALANCE
WEATHER FLIGHT FOLLOWING
FLIGHT PLANNER
FLIGHT SCHEDULING
CUSTOM CLEARANCE
VOICE
WEATHER
D-ATIS
TWIP
GTWS
PDC
POSITION REPORTS
ATC MESSAGING
VIDEO
VOICE
FDR (BLACK BOX)
CVR (VOICE RECORDER)
FLIGHT FOLLOWING - PANIC
EMERGENCY MSG
GROUND / PHYSICAL SECURITY

FIG. 6